

## ABSTRACT

A multi-mode switching regulator is capable of operating in a buck mode of operation, a boost mode of operation, and a buck-boost mode of operation. In the buck-boost mode of operation, the output voltage is regulated by adjusting a number of switch state transitions from a first state to a second state relative to a number of switch state transitions from the first state to a third state, and the duty cycle of each of the states is fixed from cycle to cycle in which the particular state occurs.

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